

**Cigarette Manufacturing Processes
Not Only Do Not Increase Nicotine Levels
Above What Is Naturally Found In Tobacco,
They Result In Reduced Levels**

A recent story by the ABC television program, "Day One," *falsely* charged that cigarette companies "spike" cigarettes with nicotine. The FDA Commissioner also has incorrectly stated that "manufacturers commonly add nicotine to cigarettes to deliver specific amounts of nicotine." On the basis of such misinformation, the agency has asserted that it has authority to regulate cigarettes as a "drug" under food and drug law, which would mean a ban on cigarettes as they exist in the marketplace today.

The *facts* are that nicotine occurs naturally in tobacco and the processing of tobacco and the manufacture of cigarettes do not increase nicotine levels in any cigarettes above what is naturally found in tobacco. Indeed, nicotine levels are reduced as compared to the raw, unprocessed tobacco that initially goes into the product.

The government and the public are well aware of nicotine levels in cigarette brands. Companies report nicotine yields to the Federal Trade Commission under strict compliance with the FTC's prescribed testing methodology. The FTC is authorized to publish such information and, moreover, nicotine yields are disclosed to consumers in advertisements.

The FDA's suggestion that cigarette companies affirmatively seek to control and maintain high levels of nicotine also is not borne out by the facts. Cigarette products are designed to appeal to the tastes of today's adult smokers. In the past 50 years, the average nicotine yield of American cigarettes has declined by more than 50 percent.

In short, nicotine actually is *lost* from tobacco throughout all aspects of processing and manufacturing, as evidenced in the nicotine release reports required under applicable state and federal regulations. This occurs during tobacco curing, expansion, and reconstitution, and in steam and dryer operations in primary processing. The wide variety of cigarettes available to consumers is available, in large part, because of tobacco blending techniques, as well as other techniques to reduce nicotine yields in response to demands of some smokers, such as ventilation and filtration.

Despite these facts, the "Day One" program focused on three particular methods involved in cigarette processing: the use of tobacco extracts, the use of denatured alcohol, and reconstitution. The program erroneously alleged that these methods served as examples of ways by which companies intentionally and artificially raise nicotine levels. These are discussed below.

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Reconstituted Tobacco

The use of reconstituted tobacco reduces, not increases, the nicotine that naturally occurs in the unprocessed tobacco.

The process of producing reconstituted tobacco is basically a process designed to make efficient use of all parts of the tobacco plant. It involves the separation and recombination of water soluble materials from tobacco in a continuous process. This involves the temporary separation of water soluble components from tobacco, formation of a tobacco cellulosic sheet and reapplication of the water soluble component. On average, the percentage of reconstituted tobacco in finished cigarettes is 23 percent.

This process is not a new one or one cloaked in mystery, as the "Day One" program may have suggested. The first patent on the tobacco reconstitution process was issued almost 150 years ago. It is a well-known process that has been repeatedly described in public literature.

The use of the reconstituted tobacco process reduces nicotine levels anywhere from 20 to 40 percent, as compared to the starting raw tobacco materials. The "Day One" program, however, purported to show, by taking apart a cigarette and analyzing the reconstituted tobacco, that the reconstituted tobacco had higher levels of nicotine than that claimed by cigarette manufacturers. What they failed to mention was that when the reconstituted tobacco is combined with the rest of the tobacco that goes into a cigarette, over time, some migration of nicotine from the rest of the tobacco to its reconstituted counterpart occurs. Consequently, the "Day One" program provided absolutely no evidence that nicotine is added to reconstituted tobacco. Any higher level of nicotine in the reconstituted tobacco contained in the final cigarette as a result of migration is compensated for by a corresponding decrease in the nicotine levels in the rest of the tobacco. In short, the *total* nicotine in the cigarette and smoke remains the same, despite migration, which, in any event, is less than that contained in a cigarette comprised totally of unprocessed tobacco.

Denatured Alcohol

Denatured alcohol is not used to increase nicotine levels, nor does it result in any measurable increase in the finished cigarette product.

Alcohol is used as a solvent and carrier for flavors in the cigarette industry, as well as in other industries, such as food and beverage. It is necessary because all flavors cannot be dissolved in water.

Alcohol is denatured with small amounts of nicotine (sulfate) for the *sole* intent of making it bitter and, therefore, nondrinkable for purposes of worker safety. (Methylene blue is present to color the solution.) The key point is, however, that this form of alcohol, SDA-4, is the only

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one approved for tobacco processing and manufacturing by the Bureau of Alcohol, Tobacco and Firearms. See 27 C.F.R. § 21.38. Members of the tobacco industry have been using it for over 40 years with government approval. As noted above, the use of denatured alcohol does not measurably impact nicotine levels in the final product.

Tobacco Extracts

Similarly, the use of tobacco extracts has no measurable impact on the nicotine levels in the finished cigarette or the tobacco smoke.

Another unfounded allegation contained in the program was that the use of natural tobacco extracts, sometimes used to flavor cigarettes, is intended to artificially raise the nicotine levels in cigarettes. The fact is that the nicotine contribution from tobacco extracts added to the finished product is negligible, and thus does not measurably change the levels of nicotine in the tobacco smoke. "Day One" also failed to point out that tobacco extracts have a long and well-documented history of use in the manufacture of tobacco products.

In conclusion, it is simply untrue that cigarette manufacturers artificially and intentionally increase nicotine levels in cigarettes. Overall, nicotine levels decrease as a result of cigarette processing and manufacturing methods.

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